

VII. Specification Amendments under 37 C.F.R. § 1.121

- 1) Replace the paragraph that begins on page 36, line 28, starting with "Detailed information concerning the amino acid sequences of such...", with the following amended paragraph:

Detailed information concerning the amino acid sequences of such polypeptides and of polynucleotides encoding these polypeptides can be obtained from various sequence databases such as GenBank, PIR and SWISSPROT. For example, the human leucine zipper protein C/EBP gamma is described in GenBank accession number P53567 and the yeast leucine zipper protein GCN4 is described in GenBank accession number P03069. Additional information concerning the function and manipulation of such sequences is available in the scientific literature, see for example O'Shea et al. (1991) Science 254(5031):539-544; Agre et al. (1989) Science 246(4932):922-926; and Katz et al. (1989) Biotechniques 25(2):298-302. In addition, the amino acid sequence of a peptide mimetic of biotin (CHPQFC) (SEQ ID NO: 1) has been determined by McLafferty et al. (1993) Gene 128:29-36. Many examples of ligands and receptors will be well known to practitioners of the art and specific sequences for such polypeptides and polynucleotides that encode them can be obtained from sequence databases such as listed here.

- 2) Replace the paragraph that begins on page 47, line 24, starting with "The invention further provides an agent that modifies...", with the following amended paragraph:

The invention further provides an agent that modifies both a target cell and a dendritic cell so that these cells present a complimentary pair of molecules with mutual binding affinity for each other such as a receptor ligand pair. For example, the agent can comprise streptavidin and a peptide mimetic of biotin such as the peptide CHPQXC (SEQ ID NO: 1), where one of these molecules is displayed on the surface of a target cell and the other is displayed on the surface of a dendritic cell.

- 3) Replace the paragraph that begins on page 58, line 9, starting with "Tumor cells are transduced with a gene that will cause streptavidin to be displayed...", with the following amended paragraph:

Tumor cells are transduced with a gene that will cause streptavidin to be displayed on the cell surface. Biotinylated DCs or DCs transduced with a gene that will cause a peptomimetic of biotin (such as CHPQXC (SEQ ID NO: 1)) to be displayed on the cell surface are administered to the host. Interaction of the streptavidin displaying tumor cells with biotin or biotin mimetic labels DCs favors the union of tumor cells with DCs.

4) Replace the paragraph that begins on page 10, line 25, starting with "The terms "major histocompatibility complex" or "MHC" refers to a complex of genes...", with the following amended paragraph:

The terms "major histocompatibility complex" or "MHC" refers to a complex of genes encoding cell-surface molecules that are required for antigen presentation to T cells and for rapid graft rejection. In humans, the MHC complex is also known as the HLA complex. The proteins encoded by the MHC complex are known as "MHC molecules" and are classified into class I and class II MHC molecules. Class I MHC molecules include membrane heterodimeric proteins made up of an α chain encoded in the MHC associated noncovalently with β 2-microglobulin. Class I MHC molecules are expressed by nearly all nucleated cells and have been shown to function in antigen presentation to CD8+ T cells. Class I molecules include HLA-A, -B, and -C in humans. Class II MHC molecules also include membrane heterodimeric proteins consisting of noncovalently associated A and B chains. Class II MHC are known to function in CD4+ T cells and, in humans, include HLA-DP, -DQ, and DR.

5) Replace the paragraph that begins on page 45, line 8, starting with "In one embodiment the agent comprises a molecule that stimulates the inherent ability of dendritic cells to engulf...", with the following amended paragraph:

In one embodiment the agent comprises a molecule that stimulates the inherent ability of dendritic cells to engulf other cells. For example, the agent can deliver to a target cell a cell surface molecule that binds with high affinity to the surface of a dendritic cell, inducing the dendritic cell to engulf the target cell. Specific molecules with this property include, but are not limited to: 1) the Fc portion of an antibody molecule; 2) a protein or peptide covalently linked to accessible mannose residues; 3) the molecule phosphatidylserine; and 4) a molecule such as vitronectin and thrombospondin that binds to an α v β 3 integrin molecule that is present on the surface of a dendritic cell.

6) Replace the paragraph on page 56, line 24, starting with "Example 3: E. coli...", with the following amended paragraph:

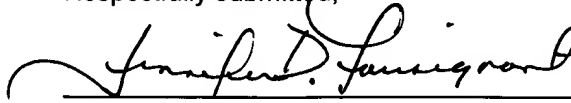
Example 3: E. coli β -galactosidase target for exogenous antigen induced lysis

VII. Conclusion

No fee is deemed necessary in connection with the filing of this communication. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 07-1074.

Respectfully submitted,

March 9, 2004
Date



Jennifer D. Tousignant
Agent for Applicants
Registration No. 54,498
Telephone: (508) 270-2499
Facsimile: (508) 872-5415

GENZYME CORPORATION
15 Pleasant Street Connector
P.O. Box 9322
Framingham, Massachusetts 01701-9322